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計畫名稱：對外團體成員態度偏誤之探討—以在台外籍旅人與當地居民間之張力為例

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Exploration of Attitude Bias Among Ingroup Members Toward Outgroups: Tension in Taiwan Between the Locals and the Expat Community

對外團體成員態度偏誤之探討—以在台外籍旅人與當地居民間之張力為例

摘要

社會認同 (social identification) 形成在各文化中顯而易見的內團體—外團體動力 (ingroup-outgroup dynamic)。透過這樣的社會分類，使內團體對外團體在團體同質效應 (outgroup homogeneity effect) 下產生刻板印象(stereotypes)。儘管這些微侵略的態度或行為 (microaggression) 並不被社會認同，當出現模棱兩可的情況時，它們還是會被展現出來。無數的研究已指出，任何形式的微侵略皆對人與人之間的關係具有破壞性。因此，隨著臺灣觀光業之成長，為了當地居民以及來訪的外地旅客的著想，必須維持一個友善的環境。本前置研究，測試 60 名臺灣人之內隱態度，所發現的實驗結果和過去內團體偏好相關之研究對立。多變量變異數分析結果顯示，平均數顯示最多的負向特質被歸因至內團體 ($\mu = 14.85$)，而且，內團體的正向特質平均數也是最少的 ($\mu = 13.75$)。這代表了一個特別的標準轉變現象 (standard switch)。正式研究將研究參與者隨機分派至四組（白人 vs. 黑人 vs. 亞洲人 vs. 中東人），並測量研究參與者對各組的內引態度。分析結果顯示，在對於外團體的較多正向內隱態度上達顯著差異 ($F(3, 147) = 3.10, p = .029$)，及對於內團體的較多負向內隱態度上達顯著差異($F(3, 147) = 51.75, p = .000$)。但，更詳細的事後分析顯示對於外團體有時間偏見 (Intergroup Time Bias, ITB)，對於內團體的內引態度都顯出較長的反應時間，不管是在正向題上($F(3, 147) = 3.96, p = .009$)，或是負向題上($F(3, 147) = 3.59, p = .015$)。

關鍵字：*偏誤、內團體、外團體、內引態度、偏見、刻板印象*

ABSTRACT

Social identification creates the formation of ingroup-outgroup dynamic that is prevalent in all cultures. With such social categorization, stereotypes will be created by ingroups towards outgroup members due to the outgroup homogeneity effect, which can often lead to decisional bias. Even though these attitudes or acts of microaggression are not socially accepted, they are still displayed when ambiguous circumstances arise. It has been proven in countless studies that any form of microaggression is destructive to human relations. Therefore, with Taiwan's growth in tourism a cordial environment must be sustained for the wellbeing of local residents, and the visiting foreign travellers. The pilot study investigated the implicit attitude of 60 Taiwanese locals, and found the results to oppose all past research regarding ingroup favoritism. More negative traits were attributed to the ingroup prime($\mu = 14.85$), and least positive traits were too attributed to the ingroup prime($\mu = 13.75$). Presenting an interesting case of 'standard swtich'. In the main study, four different primes (Caucasian vs. African-American vs. Asian vs. Middle-Eastern) were used to investigate the implicit attitude bias towards foreign communities. Through MANOVA analysis, the participants' presented significance in the implicit measure of prejudice for more positive traits toward outgroups ($F(3, 147) = 3.10, p = .029$), and more negative traits towards the ingroup ($F(3, 147) = 51.75, p = .000$). Yet, when assessing the data, the results presented with significance in the reaction time for positive traits ($F(3, 147) = 3.96, p = .009$), and negative traits ($F(3, 147) = 3.59, p = .015$) with concurrence to Intergroup Time Bias (ITB), longer time for the ingroup, and shorter time for the outgroup.

Keywords: *bias, ingroup, outgroup, implicit attitude, prejudice, stereotypes*

INTRODUCTION

On August 4th 2014, Jason, a dual nationality Taiwanese-American was recorded cursing violently at a bus driver. According to the online news website *ETtoday*, the man was furious at the bus driver for refusing to pull over at a stop that he had rang the bell for. However, apparently the stop Jason was acquiring was not on the planned bus route, though this did not stop the young man's rage demanding for an apology towards him and his pregnant wife (ETtoday News, 2014). As the video went viral on the Internet, people warranted to track down the couple that caused the disturbance on the public transport. Eventually the young couple apologised publicly for their uncontrolled outburst of temper, and admitted to Jason's lack of social etiquettes. During this whole scandal, the most popular online discussion board, the PTT, was filled with comments against foreigners, or so called "Lao Wai", and outraged at their apparent self-believed superiority simply for their race and/or English communication skills. It was completely disregarded the fact that Jason, was still fundamentally a Taiwanese man. The event mentioned prompted the question of whether the Taiwanese society would have reacted differently if Jason had been cursing in Chinese instead of English. The incident mentioned above only vaguely demonstrates the motive for the conducted research.

Tourism in Taiwan has grown exponentially throughout the years. According to the Tourism Bureau, organized by the Ministry of Transportation and Communications, since 2004 the amount of traffic entering Taiwan has increased from 2, 950, 342 people to 8, 016, 280 in 2013 (Tourism Bureau, M.O.T.C. Republic of China (Taiwan), 2015). Over the 10 years, the total amount of people entering Taiwan annually has augmented without a drop. This indicates that Taiwan is becoming more and more internationalized as a country, and consequently the foreign communities in Taiwan continue to grow. Increases of foreign communities introduce alternative

cultures to Taiwanese locals whom may or may not have been exposed to certain "new" customs. This could lead to clashes between cultures as a misunderstanding or lack of knowledge in each other's cultural values, creating friction and prejudice, and ultimately lead to discrimination of the "Lao Wai" community.

Tourism holds 68.35% of the reason why people enter Taiwan; therefore a cordial environment must be preserved in hope of constructing a reputation as a hospitable country, and to continue the growth of Taiwan's economy through tourism (Tourism Bureau, M.O.T.C. Republic of China (Taiwan), 2015).

The importance of this study differs from past racial discrimination researches. It is different from past researches as discrimination towards the foreign communities has yet to occur here in Taiwan; however, there have been small disputes over the years evident in the event mentioned above. It is critical to resolve these small tensions before it develops into serious discriminatory issues. Humans are social animals with an innate need to identify with an ingroup; once the identification occurs, prejudice develops due to the connection to the social group, and when this prejudice is acted upon – it becomes discrimination (Kassin, Fein, & Markus, 2014). It is without a doubt that Taiwanese locals have long established an ingroup amongst themselves, therefore, it places the introduction of foreigners as an outgroup. Although this may seemingly coincide with the measures of past studies, there are a few deviating factors; such as Taiwanese people are rather fond of the Western culture, regardless whether it were food, clothing, music…etc. Taiwan is fascinated with what the Western cultures brings. Furthermore, past racial discrimination studies have centered on the tension between Caucasians and people of an African decent – these studies usually involve people of the same working class or Caucasians in a higher social hierarchy (Roscigno, Williams, & Byron, 2012; Caldwell, Kohn-Wood, Schmeelk-Cone, Chavous, & Zimmerman, 2004; Jagers, 1996). The difference here is that foreigners are "percieved" to be in a higher social hierachy as they are mostly teachers or businessmen. With these differentiating factors in mind, this research aims to investigate Taiwanese culture's bias towards the freshly introduced foreign culture.

LITERATURE REVIEW

This section will review past literature surrounding the topic of racial bias. Through exploration into former published articles, it can shed light on the factors that produce bias, prejudice, and discrimination; past articles will also contain results of how these social barriers affect the society. As any form of bias, prejudice, or discrimination are implicit attitudes that are known to be socially unacceptable, people tend to conceal them, past literature will provide methodologies of how it can be tested.

Ingroup vs. Outgroup – Formation of Bias as a Social Barrier

If there was not the possibility "to procreate together,…there would be two very distinctive species; the Negro would be to the man what donkey is to the horse; or rather, if the White was the man, the Negro would no longer be a man, it would be a special animal like the ape."

– Buffon (1833-1834, Vol. X, p. 171)

Historically, it is not unknown of people who think like Buffon, although he may be a diligent scientific, it is believed that all humans altruistically confirm his ideology whether it is in a negative or positive way (Leyens, et al., 2000) and in a less intensive manner. It is observed to be human nature to categorize people into ingroup and outgroup according to the social environment; this is deeply rooted in our evolutionary history as a crucial survival value. The

basic motive to protect one's ingroup, and be cautious of the harm that might come in contact with outgroup is likely to have evolved into more complex cognitive processes. People tend to express more prejudice toward outgroup members, and are especially skeptical when given the opportunity to accept an outgroup member as their own (Maner & Miller, 2012). Once the members have taken on their group identity, a cognitive consequence of such is the development of the *outgroup homogeneity effect* (Judd, Park, Yzerbyt, Gorgijn, & Muller, 2005). This cognitive effect causes the ingroup to perceive the members of outgroup with a greater similarity, in other words, there are distinct differences between what is recognized as "us", but "they" are viewed as one of the same (Linville & Jones, 1980). Another cognitive consequence of the social categorization is the enhancement of the differences between groups. The combination of the above cognitive consequences forms a vicious cycle resulting in the division between the social groups. This is the subtle creation of prejudice and discrimination – members take on the stereotypic beliefs of one's social group, and when these beliefs regarding the outgroup are upheld and endorsed, it becomes expressed prejudice and discrimination (Stangor, Sechrist, & Jost, 2001).

Effects of Bias, Prejudice and Discrimination

The detrimental effect of bias, prejudice and discrimination has been made public for decades (Caldwell, Kohn-Wood, Schmeelk-Cone, Chavous, & Zimmerman, 2004). Researchers all over the world have looked into the different ways bias can affect people, this ranges from gender bias in classrooms to the racial bias experienced on a day-to-day basis.

Gender bias restricts educational growth of females in a classroom (Boysen, 2013; (Espinoza, Arêas da Luz Fontes, & Arms-Chavez, 2014). Subtle actions may seem trivial, however, it could really present a ripple effect that permanently affects people's lives. Studies showed that professors were wiling to spend a shorter amount of time on female college students, and provided less hints in assistece of problem-solving. These overall diminishing acts of nurture in context of education confines females' mathematical skills at a lower level compare to males. The above gender bias is a prime example of how subtle microaggression can produce an adverse effect on society.

Racial bias, prejudice, and discrimination promote violence (Krieger, 1990; Sellers, Caldwell, Schmeelk-Cone, & Zimmerman, 2003). At work places, employer racism might be observed through their willingness to recruit workers of African-American decent (Tilly, Moss, Kirschenman, & Kennelley, 2001), or a bias in interpreting the backgrounds of Caucasian and African-American applicants – choosing the Caucasian applicant over the African-American applicant even though both came with clean slates (Pager et al., 2009). In death penalties, it is found that defendants of African-American decent were treated more punitively than Caucasian defendants (Lynch & Haney, 2000). The provided research were only examples of a few negative consequence of racism. Although extreme, and Taiwan has yet to reach that level in intensity in cultural friction, issue such as racism is better to be eradicated at its roots.

In clarification, in this research, the generic use of "racism" will be used to imply any bias, prejudice, or discrimination against people for their differences in a social group that does not hold the same identity as one's own. These differences may be in terms of religion (Deconchy, 1980), cultural (Billig, 1976), biological (Jones, 1997)…etc.

Measures of Implicit Attitude

Racism is the extreme product of stereotype. Before delving into research for racism in

Taiwan that has yet become prominent, let's first look at the stereotypic bias locals have placed on foreigners or "Lao Wai". Stereotypes are cognitive structures that affect one's perception, attention and memory (Hamilton, 1981). As these cognitive structures cannot be studied physically, psychologists have developed paradigms for which can be used to measure these implicit attitudes.

The Priming Paradigm has been most extensively used as an Implicit Attitude Test to observe "hidden" perspectives that people do not often display. In Rosch's (1975a, 1975b) research, a prime was use to "lure" out implicit information that people did not exhibit. A prime would first be presented, followed by a series of words where the participants were required to determine its accuracy in reference to the prime. It has been discovered that reactions times were much faster when the words were relative to the prime presented, and that reactions times were slower in atypical categories to the prime. This method has been taken in many attitudinal research, whether it was relative to racism or not, the shorter reaction time always correlated with its associated prime category. In a similar vain, Gaertner and McLaughlin (1983) developed Rosch's priming paradigm by combining it with a lexical decision task where they discovered that Caucasian subjects responded faster when pairing positive traits with 'white primes', and negative trait with 'negro primes'.

Further studies have developed these priming paradigms to measure racial differences such as Intergroup Time Bias (ITB) (Vala, Pereira, Eugenio, Lima, & Leyens, 2012). In ITB, it combines the idea of intergroup bias and priming paradigm, where ingroup will occupy a larger amount of time when attributing to oneself, and a shorter amount of time when attributing the outgroup. This is a consequence to outgroup homogeneity where "we" are different in our own ways, but "they" are all the same.

PILOT STUDY

PURPOSE

This pilot study conducted used a convenience-sample design to investigate the possibility of any attitudinal bias towards foreign residents. The study selected undergraduate students as a target sample to test such matter. The students will be evaluated on their positive and negative impression of different races (Caucasian, Asian & African-American), as they have been primed prior to the trial.

HYPOTHESES

1. Using one-way ANOVA, a significant bias will be presented between the 3 groups.
2. A mean of more positive characteristic traits will be attributed to the Asian prime, as the Asian-prime appears to be the ingroup of the target sample.
3. A mean of more negative characteristic traits will be attributed to the African-American prime, as they have the smallest population in comparison to the other races in Taiwan, which means Taiwanese locals have a lack of exposure to African-Americans.

METHOD

Participants

60 Taiwanese students from Chung Shan Medical University participated in the survey. Of the participants, there were 31 male and 29 females recruited at random through opportunity sampling as they coursed through the University. Participants were not given an award upon assisting the survey.

Procedures

Participants were informed they would participate in a research evaluating the effect of the presentation of a résumé. In order to establish stability across all participants, a standardized instruction was scripted and printed the script is as followed:

Dear fellow students,

First, I would like to thank you for taking the time to assist in this investigation. The objective of this study, aims to discover whether or not the presentation of an résumé will affect the impression of the employer. Please carefully read through the following questions, and answer them without too much though, just go with your first gut feeling.

In Chinese: 親愛的同學您好:

首先，謝謝您撥空參與本研究與協助填答此份問卷。本研究主要是想瞭解履歷表呈現方式對於應聘者的印象影響，故請您評價下面應聘者給您的印象。請您仔細閱讀下列的各項問題，填答時不須經過太多的思考，請直接依您的想法或感受填答。

Upon agreeing to partake in the research, the participants were provided with a short questionnaire with the résumé printed. The participants were informed to go through the résumé presented in a brief manner, focusing on the picture of the applicant provided above, and finally proceeding on to rating how much their agree with the characteristic traits the impression of the applicants have left them. After completing the questionnaire, the participants were thanked and debriefed.

Measures

Impression formation task. Without disclosing too much information regarding the real intention of the study, however still achieve the objective of racial priming by looking at the picture provided, the questionnaire began by asking three guiding questions. The first question involved the participants to briefly glance through the résumé to find the correct year of birth; the second prompted them to look at the picture, for priming purposes, to identify the race of the applicant; and finally, the last redirected the participants to look at the picture again, for ensured priming, to identify the sex of the applicant. The three questions needed to be completed correctly to be suited as significant data. The three questions were printed as below:

Referencing the résumé above, please answer the following questions:

1. *What year was the applicant born in?* □ *1985* □ *1976* □ *1983*
2. *What ethnicity was the applicant?* □ *African-American* □ *Caucasian* □ *Asian*
3. *What was the sex of the applicant?* □ *Male* □ *Female*

In Chinese: 依據上述閱讀的履歷表，請問（請勾選）：

1. *應聘者是西元幾年出生的?* □ *1985年* □ *1976年* □ *1983年*
2. *應聘者是哪個種族的人？* □ *黑人* □ *白人* □ *亞洲人*
3. *應聘者是什麼性別?* □ *男* □ *女*

Implicit measure of prejudice. The participants were informed they had to make an assessment of the impression the applicant of the résumé left. The impressions of characteristic traits were a list used by Dovidio, Evans and Tyler (1986) containing positive and negative adjectives attributing to two races – black and white. The assessment was carried out on a 5-point Likert scale ranging from 1 to 5, with 1 indicating 'Completely Disagree' and 5 indicating 'Completely Agree'.

Basic information. For further data analysis, general information regarding the participants was also collected. Information such as their age, in order to assess the degree of bias between different age groups; the frequency and amount of contact with a foreign culture, this too is to assess whether exposure effect is a mediating factor; and finally, whether or not they recognize the man in the provided photo to ensure there are no personal confounding factors.

RESULTS

Table 1

Descriptive Statistics of Positive and Negative Traits Attributed to Different Primes

Trait	Prime	n	Mean	SD	F	p	Eta
Positive	Caucasian	60	15.50	2.60	0.79	.457	.27
	Asian		14.85	2.87			
	African-American		16.00	3.17			
Negative	Caucasian	60	11.60	2.81	2.72	.075	.87
	Asian		13.75	3.12			
	African-American		11.80	3.66			

Note. $p < .05$ *show significance*

The results of the pilot study were processed through One-Way ANOVA. Although the results of the pilot study did not show significance, and did not accept the proposed hypotheses, there appears to be an interesting finding. As there were 10 traits (5 positive, 5 negative) to be evaluated, the sum of each positive and negative traits were first calculated to produce the mean. The higher the mean, conveys a higher concordance with the trait attributed to the primed race. From the results, the Asian prime $M = 14.85$ for positive trait attribution and $M = 13.75$ for negative trait attributions, is the complete opposite to what was predicted in the hypotheses. The participants attributed least positive traits to their ingroup (Asian prime); most positive traits to their rarest outgroup (African-American prime $M = 16.00$); least negative traits to their rarest outgroup (African-American prime $M = 11.80$); and most negative traits to their ingroup (Asian prime $M = 13.75$). However, positive traits showed $p = .457$, which showed no significance, rendering the results insignificant; negative traits showed $p = .075$, which is drawing very closely to the $> .05$ significance rate. This shows potential in promising data.

Table 2

Significance of Negative Traits Attributed to the Asian Prime vs. Outgroups

Trait	Prime	Compared Primes	Mean	SD	p	95% Confidence Interval	
						Lower Bound	Upper Bound
Negative	Asian	Caucasian	2.15	1.019	.039	.11	4.19
		AF	1.95	1.019	.061	-.09	3.99

Note. $p < .05$ *show significance*

**Abbreviation used: AF, for African-American*

When looking at the comparison between the Post. Hoc results of the data, negative traits showed significance when comparing Asian and Caucasians. Post. Hoc results in the negative traits section, between Asian and Caucasian showed $p = .039$ which means the difference between Asian and Caucasian primes are significant. When comparing between Asian and

African-American primes, it presented a $p = .0.61$ which is very close to a significant rate.

DISCUSSION

From past research of ingroup-outgroup dynamics, the ingroup (Asian prime) should have attributed more positive trait to itself, and more negative traits to the outgroup, either the Caucasian prime or the African-American prime (Dovidio, Evans, & Tyler, 1986). Furthermore, following the mere exposure effect, more negative traits should have been attributed to the African-American prime between the outgroup, as they are seen even less than Caucasians in Taiwan. Consistent exposure to ingroup promotes prejudice (Smith, Dijksterhuis, & Chaiken, 2008; Zebrowitz, White, & Wieneke, 2008). These findings opposing past research literature could have been caused by several reasons.

Standard Switch. As prejudice related research has never been conducted in Taiwan, there is no basal attitudinal standard to compare to, also, due to cultural favouritism of foreign travellers Taiwan might have standard switch compared to other cultures. Increase in tourism has mostly brought on by foreign travellers; this might have conditioned Taiwanese locals to associate them with positive attributions.

Small sample. It is present in negative traits that it is drawing very closing to a significance rate. This could produce a difference when the sample size has been increased in the main study.

Impression formation task. The impression formation task may not have primed the participants strong enough to produce a difference. As the résumé was still the "main focus" of the study, the participants might have been distracted by the content instead of focusing on the pictures. Moreover, the pictures were just casual Facebook headshots of contributors. If the photos were seemingly taken under certain scenarios or standardised profile pictures, this could produce a significant difference.

MAIN STUDY

PURPOSE

The main study considered the results from the pilot study conducted beforehand, where it presented an interesting finding that did not correlate with the predicted hypotheses. Thus, the main study will investigate the validity of such correlation, and further understand the extent of its deviation from the norm. The research employed a convenient-sample design to explore the racial gap that bridges the East and West communities in the Taiwanese culture.

HYPOTHESES

1. A mean of more positive characteristic traits will be attributed to the African-American prime; considering there is a smaller population of African-Americans in Taiwan, in comparison with the Caucasian outgroup, African-Americans would appear more distant to the locals.
2. A mean of more negative characteristic traits will be attributed to the Asian prime, as Asian is a collectivist culture, and may be more critical towards ingroup members than the others.
3. Intergroup Time Bias (ITB) will present latency in locals assigning a larger amount of time for the outgroup (Caucasian, African-American, and the Middle-Eastern primes). Although outgroup homogeneity will render them the same, the standard switch could lead the locals to permit a larger amount of time for the outgroup due to language

barriers, and the developed positive attribution throughout the years.

METHOD

Participants

The general public was the target sample population of this study. The questionnaire was distributed online through forms of social media. Other participants were recruited at public areas with high population flow, e.g. the train station, or department stores. A total of 200 people participated in the study.

Procedure

Participants were informed they would engage in a study that aims to explore the effect of social media. To establish consistency across all participants, a script of standardised instruction was formulated. The script was as followed:

Dear participant,

First, I would like to thank you for taking the time to assist in this investigation. The objective of this study, aims to understand how the social news outlet effect people's perception. Please carefully read through the news articles below, and then proceed to rate how much you agree with the impression of the protagonist. When answering the questions, do not pay too much thought, and just go with your gut feeling.

In Chinese: 親愛的朋友您好：

首先，謝謝您撥空參與本研究與協助填答此份問卷。本研究主要是想瞭解社會新聞事件如何影響民眾觀感，故請您閱讀下列各新聞事件，再評價該事件主角給您的印象。請您仔細閱讀下列各項問題，填答時不須經過太多的思考，請直接依您的想法或感受填答。

The study began with the *impression formation task* which included priming the participants by showing them the three chosen news articles for the purpose of research manipulation. Following that, the *implicit measure of bias* and the *intergroup time bias* of the participants were measured concurrently. The participants were presented with characteristic traits taken from Vala et al. (2012), and Ruble and Zhang (2012) and were instructed to evaluate how much they agreed with the characteristic traits applied to the offenders of the above articles. The participants were not informed that their *intergroup time bias* would be measured as they answer each question. Upon completion of the study, the participants provided their basic information for further analysis with full anonymity. Each participant concluded the study being thanked and debriefed.

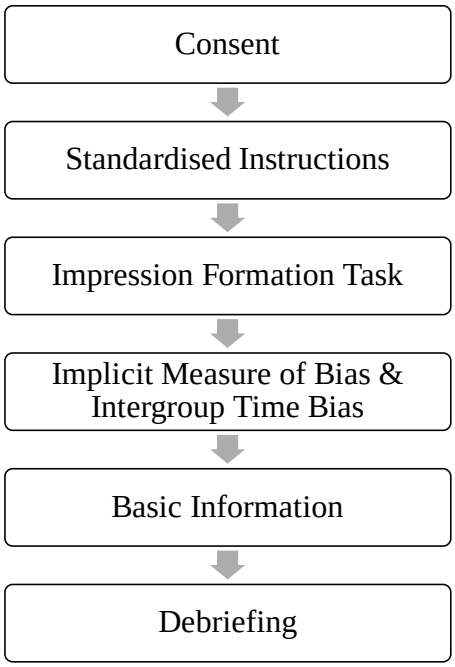

Figure 1. Procedure of the Study: The prime of which the participant received (Caucasian, African-American, Asian or Middle-Eastern) was selected at random through computer processing when the online questionnaire begins.

Measures

Impression formation task. Three new articles were carefully selected and modified as a part of the disguise for the research manipulation phase (priming). The articles were chosen based on the content of the report, and the severity of the crime, preferably a small misdemeanour, as a major crime would be widely known. The offenders of each articles were fabricated to be of different person; different sexes; different ages; and from three different areas of Taiwan (north, center, and south). However, the offenders were of the same race (Caucasian, African-American, Asian, or Middle-Eastern). This was executed deliberately to imply that people of that race were more prone to the above offenses. Following each article was a standardised picture of the offender made anonymous. The pictures were consistently portraits of 12 men and women of the four different races. The facial features of the priming pictures were pixelated to obtain the anonymity of the subjects. To ensure the priming was successful, the participants are immediately presented with three questions regarding the new articles. This process eliminated the people who continued the study without being properly primed, as well as redirected the participants to review the articles, hence taking a second look at the photos. The three questions were as followed:

Referencing the articles above, please answer the following questions:

1. *Article one; at what location did the event take place?*
   □ *Fast Food Chain* □ *Department Store* □ *Night Market*
2. *Article two; in what area of the country did the event occur?*
   □ *North* □ *South* □ *Center*
3. *Article three; what was the race of the offender?*
   □ *Caucasian* □ *African-American* □ *Asian* □ *Middle-Eastern*

In Chinese: 依照上述閱讀的報導，請問（請勾選）：

1. 事件一，事件發生在什麼場所？ ☐ 速食店 ☐ 百貨公司 ☐ 夜市
2. 事件二，發生在什麼區域？ ☐ 北部 ☐ 南部 ☐ 中部
3. 事件三，主角是什麼種族的人？ ☐ 白人 ☐ 黑人 ☐ 亞洲人 ☐ 中東人

An addition that differs the main study from the pilot study was the introduction of a Middle-Eastern prime. Since the 911 incidents, many Muslim studies have risen looking into the stereotypes and bias of the Middle-Eastern minority. Studies have looked into "Asian Americans and "Arab American" as if they were of two different race (Maira & Shihade, 2006). By integrating the similar concept, the ingroup-outgroup dynamic can be further investigated, as Middle-Eastern Asians are geologically an ingroup as East Asians, however, an outgroup by their appearance. Moreover, studies associated with Middle-Easterners are often linked to negative stereotypes (Wirtz, van der Pligt, & Doosje, 2015), where prominent in studies into Asians, in general, when no specified, the attributed stereotypes are more often than not – positive (Ruble & Zhang, 2013; Chang & Demyan, 2007; Lee & Joo, 2005).

Intergroup Time Bias measure. For each of the personality traits presented to the participants, their reaction time was recorded in milliseconds. The time start from the point the trait is presented, till the participant clicks "Next Page" for the following trait.

Implicit measure of bias. The participants were informed to assess the accuracy of following words. The list of words used in Vala et al., (2012)'s experiment was borrowed for this purpose. However, as Vala et al., (2012) only conducted their investigation into two races (Caucasians, and African-Americans), traits representing the Asian race had to be drawn from other studies. Ruble and Zhang (2012) studied stereotypes of Chinese international students held by Americans; in their study, a list trait vs. the traits' favourability by Americans was derived from the collected data. To accommodate the form of Vala et al. (2012)'s study, four most favourable stereotypes given to Asians, and four least favourable stereotypes were selected from Ruble and Zhang (2012)'s results. These were added to the word list representing the Asian prime stereotypes in a positive and negative manner.

Following Rosch's priming paradigm, positive traits, negative traits, and neutral words will be presented to the participants. The orders of which the traits are presented to the participants were generated by random. To quantify their evaluation of the words, similar to the pilot study conducted, the participants rated on a 5-point Likert scale on how much they agree with the presented list of traits and neutral words. The range of the scale would range from 1 to 5, with 1 indicating 'Completely Disagree' and 5 indicating 'Completely Agree'.

Table 3

Positive and Negative Stereotypical Traits Used for Each Race, and Corresponding Chinese Translations

+ve/ -ve	Nonstereotypical	Caucasian	Asian	African-American
Positive Stereotypical Traits	Appealing 有吸引力的	Ambitious 有雄心的	Intelligent 有智慧的	Athletic 有運動細胞的
	Delightful 愉快的	Competent 能幹的	Smart 聰明的	Cheerful 個性開朗的的

	Favourable 令人喜愛的	Educated 有教養的	Studious 好學的	Expressive 富有表現力的
	Sincere 真誠的	Industrious 勤勞的	Hardworking 刻苦耐勞的	Musical 有音樂天份的
Negative Stereotypical Traits	Awful 可怕的	Boring 無聊的	Rude 沒禮貌的	Delinquent 使壞的
	Horrible 恐怖的	Exploitative 會利用人的	Conceited 自以為是的	Dishonest 不誠實的
	Repulsive 噁心的	Materialistic 唯物主義的	Annoying 很煩的	Lazy 懶惰的
	Upsetting 不愉快的	Selfish 自私的	Loud 吵鬧的	Violent 暴力的

Note. Some of the words would be lost in translation if rendered directly into Chinese. The closest, equivalent meaning of the English word was used in the study.

Basic information. In the pilot study, a brief Post. Hoc presented a difference in attribution with different age groups. Therefore, for the same reason, general information regarding the participants and their interaction with the foreign community was collected for further analysis. Information regarding the participants' age will be required for the purpose of the study; the frequency of contact with foreigners; their occupation, and recognition of the prime were all included as previous. This section of the questionnaire was also further extended to investigate factors causing the standard switch.

RESULTS

The results of this study was processed through SPSS 20.0, the investigate dependent variables were the *implicit measure of bias*, and *intergroup time bias* of local Taiwanese residents towards the foreign community. The collected data was examined through One-Way ANOVA. The results presented a positive outcome of crucial significance, which supported the proposed hypotheses.

Table 4

Descriptive Statistics of the Traits and Reaction Time to Different Primes

	n	*SD*	Mean
Positive Traits			
Caucasian	29	.72547	1.92
African-American	46	.69334	2.13
Asian	42	.59468	1.71
Middle-Eastern	34	.59350	1.85
Negative Traits			
Caucasian	29	.38271	1.75
African-American	46	.71296	2.89

Asian	42	.69216	3.53
Middle-Eastern	34	.52195	3.24
Reaction Time (+ve)			
Caucasian	29	2526.31284	6563.01
African-American	46	3184.31984	7489.77
Asian	42	3368.58569	8839.33
Middle-Eastern	34	2971.09845	6904.53
Reaction Time (-ve)			
Caucasian	29	2693.28308	5282.41
African-American	46	3243.29989	7192.56
Asian	42	4519.96560	7700.03
Middle-Eastern	34	2233.99957	6111.49

As there were 32 traits (16 positive and 16 negative) to be evaluated, the sums of each positive and negative trait were first calculated to produce the mean. A higher mean would indicate a stronger concurrence with the trait attributed to the primed race. In positive traits, the African-American prime scored a higher correspondence in positive traits attributed to them ($M = 2.13$) when being assessed by the Taiwanese locals, followed by Caucasian ($M = 1.92$), Middle-Eastern ($M = 1.85$), and Asian ($M = 1.71$). In negative traits, most negative traits were agreeably attributed the Asian prime ($M = 3.53$), followed by Middle-Eastern ($M = 3.24$), African-American ($M = 2.89$), and lastly the Caucasian prime ($M = 1.75$) with least negative traits attributed to them.

As the reaction time for each question was recorded in milliseconds, the data was divided into reaction time for positive traits, and reaction time for negative traits. The mean was calculated for each prime, and the results showed that the participants utilized a longer amount of time when responding to positive traits for Asian prime ($M = 8839.33$), followed by African-American ($M = 7489.77$), Middle-Eastern ($M = 6904.53$), and finally Caucasian ($M = 6563.01$). When responding to negative traits, the longest amount of time used was towards the Asian prime ($M = 7700.03$), followed by African-American ($M = 7192.56$), Middle-Eastern ($M = 6111.49$), and finally Caucasian ($M = 5282.41$).

Table 5

Test of Within-Subject Effect of Positive and Negative Traits, and the Reaction Time

	df	Mean	F	p	Eta
Prime					
Positive Traits	3	1.32	3.10	.029	.59
Negative Traits		19.58	51.75	.000	.514
Positive RT	3	37466028.34	3.99	.009	.075
Negative RT		41044196.07	3.59	.015	.068
Error					
Positive Traits	147	.43	-	-	-
Negative Traits		.38	-	-	-
Positive RT	147	9466296.42	-	-	-
Negative RT		11420332.91	-	-	-

Note. $p < .05$ *show significance*

The results of this supports both H_1 and H_2, as positive traits presented the significance of $p = .029$, and negative traits with the significance of $p = .000$. With the level of significance set at $.05$, the results presented a weighty implication; most positive traits were agreeably attributed to African-Americans > Caucasians > Middle-Easterners > Asians, and most negative traits were agreeably attributed to Asians > Middle-Easterners > African Americans > Caucasians.

From the descriptive data of the mean, and the within-subject effect of the reaction time – H_3 was not supported. H_3 hypothesized that outgroup primes would present a longer reaction time, however the mean presented that the longest reaction time for positive traits ($p = .009$) was during the Asian prime > African-American > Middle-Eastern > White; longest reaction for negative traits ($p = .015$) was the Asian prime > African-American > Middle-Eastern > White.

Table 6

Comparison of Highest Rated Prime Against the Others

Independent Variable	Prime	Compared Primes	Mean	SD	p	95% Confidence Interval	
						Lower Bound	Upper Bound
Positive Traits	AF	Caucasian	.21	.15460	.173	-.0938	.5173
		Asian	.42*	.13915	.003	.1414	.6914
		ME	.27	.14746	.064	-.0166	.5662
Negative Traits	Asian	Caucasian	1.78*	.14584	.000	1.4850	2.0719
		AF	.64*	.13126	.000	.3793	.8981
		ME	.29*	.14189	.013	.0097	.5705
Reaction Time (+ve)	Asian	Caucasian	2276.32*	742.84051	.003	808.2977	3744.3501
		AF	1349.56*	656.64074	.042	51.8820	2647.2326
		ME	1934.80*	709.79468	.007	532.0792	3337.5190
Reaction Time (-ve)	Asian	Caucasian	2417.62*	815.91499	.004	805.1783	4030.0550
		AF	507.47	721.23560	.483	-917.8613	1932.7982
		ME	1588.54*	779.61839	.043	47.8315	3129.2471

Note. Abbreviations used: AF, for African-American; ME, for Middle-Eastern.

* $M < .05$ *show significance*

* $p < .05$ *show significance*

When interpreting the comparison between the Post. Hoc results of the data, the highest rated in positive traits, African-American prime showed significance when compared to the Asian prime ($p = .003$). The highest rated in negative traits, Asian prime showed significance when compared to the Caucasian prime ($p.000$), African-American prime ($p = .000$), and Middle-Eastern prime ($p = .013$). In reaction time to positive traits, Asian prime presented significance when compared to Caucasian prime ($p = .003$), African-American prime ($p = .042$), and Middle-Eastern prime ($p = .007$). In reaction time to negative traits, Asian prime presented significance when compared to Caucasian prime ($p = .004$), and showed marginal significance to Middle-Eastern prime ($p = .043$).

DISCUSSION

Ingroup-outgroup dynamics have long been studied, and corroborated through social psychology that the ingroup would attribute more positive traits to its members, and render the outgroup the same with negative traits (Dovidio, Gaertner, & Validzic, 1998). In the case of this research, the pilot study presented a possibility 'standard switch'. Through further investigation, H1 and H2 were confirmed that more negative traits were attributed to the ingroup, and more positive traits to the outgroup. However, H3 conformed with the Intergroup Time Bias the proposed more time would be given to the ingroup (Vala, Pereira, Eugenio, Lima, & Leyens, 2012). These findings opposing past research literature could have been caused by several causes.

Mere exposure effect. From the pilot study, mere exposure effect was used to reason that the lack of exposure should result to the findings concurring with the ingroup-outgroup dynamic. However, alternatively the mere exposure effect could apply to the increase in tourism, the Taiwanese locals are receiving a lot more experiences, and interactions with foreign newcomers. Along with the benefits of their arrival, the locals could develop a fondness for the foreign communities.

Internet bandwidth. As convenient as modern technology is, it often presents limitations of its own. To simplify the process of distributing the questionnaire, the study was designed in the form of a webpage. Therefore, in order to partake in the study, an Internet connection is required. As Internet bandwidth differs in each area of the city/ township/ district…etc., it also differs amongst the different devices of which the participants were accessing the questionnaire from. A slower bandwidth could result in a larger recorded reaction time to each trait.

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需要指導教授指導內容

基於研究者仍為大學生，在專業知識與研究方法上尚有許多不足，故需指導教授予以以下協助：

一、**研究工具的編制與審核**：由於研究者的研究經驗不足，故在研究工具的審核方面仍須指導教授給予協助，以利於研究的順利進行。

二、**研究方法**：由於本研究所探討之變項繁雜，而此領域屬於指導教授之專業領域，故仍需指導教授予以協助。

三、**專業知識**：本研究所探討之性別議題屬於指導教授專業領域，研究者仍有許多專業知識需繼續向教授學習，以利於研究探討的完整性。

四、文章內容：研究者所撰寫的資料精準度尚不足，且專業格式尚未熟悉，因此需要指導教授校正研究者所撰寫之文章，且教導專業的用詞與格式寫法。

PROPOSAL TIME SCHEDULE

工作項目 / 月份	一、文獻搜集、資料整理、確認實驗流程、計畫撰寫	二、前置研究之執行，確認實驗材料	三、正式實驗的執行、結果分析、討論與撰寫	四、期末報告撰寫
103 年 12 月				
104 年 01 月				

工作項目 / 月份	一、 文獻搜集、資料整理、確認實驗流程、計畫撰寫	二、 前置研究之執行，確認實驗材料	三、 正式實驗的執行、結果分析、討論與撰寫	四、 期末報告撰寫
104 年 02 月				
104 年 03 月				
104 年 04 月				
104 年 05 月				
104 年 06 月				
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